

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary) Date Submitted to PTO: [DATE]			ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block; transform: rotate(-45deg);"> OFFICE DEC 22 2003 PATENT & TRADEMARK OFFICE </div>			APPLICANT <div style="text-align: center; font-weight: bold;">Takeo Tsukamoto</div>			
			FILING DATE <div style="text-align: center; font-weight: bold;">August 30, 2001</div>			GROUP <div style="text-align: center; font-weight: bold;">2821 2828</div>
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,472,814 B1	10/02	Yamanobe et al.	313	495	11/13/98
	5,847,495	12/98	Yamanobe et al.	313	310	
	5,066,883	11/91	Yoshioka et al.	313	309	
	6,455,021 B1	09/02	Saito	423	447.3	07/20/99
	6,471,936 B1	10/02	Chen et al.	423	658.2	03/02/00
	6,283,812 B1	09/01	Jin et al.	445	24	01/25/99
	4,816,289	03/89	Komatsu et al	423	447.3	
	5,443,859	08/95	Nagata	427	122	
	5,618,875	04/97	Baker et al.	524	495	
	5,690,997	11/97	Grow	427	249	
	6,129,602	10/00	Yamanobe	445	24	
	6,228,904 B1	05/01	Yadav et al.	523	210	
	6,333,016 B1	12/01	Resasco et al.	423	447.3	9/3/99
	6,413,487 B1	07/02	Resasco et al.	423	447.3	6/2/00
	6,445,006 B1	09/02	Brandes et al.	257	76	7/27/99
	5,981,305	11/99	Hattori	438	20	
	6,290,564 B1	9/01	Talin et al.	445	50	9/30/99
	5,458,784	10/95	Baker et al.	210	674	5/3/00
	6,331,690 B1	12/01	Yudasaka et al.	219	121.6	
	5,965,267	10/99	Nolan et al.	428	408	
EXAMINER <div style="text-align: center; font-weight: bold;">David m</div>			DATE CONSIDERED <div style="text-align: center; font-weight: bold;">11/4/04</div>			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 5

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780		
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto				
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001		GROUP 2821 2828		
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	6,390,612 B1	05/02	Kotaki et al.	347	85	
	5,872,541	02/99	Yoshioka et al.	345	74	
	5,543,684	08/96	Kumar et al.	313	495	
	5,551,903	9/96	Kumar et al.	445	24	
	4,900,483	2/90	Witzke et al.	264	29.2	
	5,500,200	3/96	Mandeville et al.	423	447.3	
	5,726,524	3/98	Debe	313	309	
	2002/0009637 A1	1/24/02	Murakami et al	429	213	2/5/01
	2002/0047562 A1	04/25/02	Kitamura et al.	315	169.3	05/29/01
	5,770,918	6/98	Kawate et al.	313	495	
	5,185,554	2/93	Nomura et al.	313	495	
	2002/0146958 A1	10/02	Ono et al.	445	24	
	2003/0048056 A1	3/03	Kitamura et al.	313	311	
EXAMINER David vn			DATE CONSIDERED 11/4/04			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 2 of 5

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto			
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001		GROUP 2821 2828	

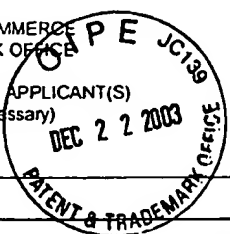
OPEN JC139
 DEC 22 2003
 PATENT & TRADEMARK OFFICE

FOREIGN PATENT DOCUMENTS						
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT	
11-194134	07/99	Japan	G01N	37/00	Abst., European Equivalence 0 913 508 A3	
11-139815	05/99	Japan	C01B	31/02	Abst.	
0 535 953 B1	01/96	EPO	H01J	1/30	English	
1 122 344 A2	08/01	EPO	D01F	9/127	English	
0 758 028 B1	09/11/02	EPO	D01F	9/127	English	
11-232997	08/27/99	Japan	H01J	1/30	European Counterpart 0 936 650	
1 022 763 A1	7/00	EPO	H01J	9/02	English	
2000-223005	8/00	Japan	H01J	1/304	Abst. & Counterpart U.S. Patent 6,283,812	
0 836 217 A1	04/98	EPO	H01J	29/94	English	
WO 99/58748	11/99	PCT	D01F	9/127	English	
CN 1181607A	5/98	China			English Counterparts 0 836 217 & 99/58748	
1 102 299 A1	5/01	EPO	H01J	1/30	English	
0 913 508 A3	5/99	EPO	D01F	9/127	English	
1 096 533 A1	5/01	EPO	H01J	9/02	English	
WO 01/26130	4/01	PCT	H01J	9/02	English	
GB 2 308 495 A	6/97	UK	H01J	1/20	English	
1 120 877 A1	8/01	EPO	H02G	5/06	English	

EXAMINER <i>David Jm</i>	DATE CONSIDERED <i>11/4/04</i>
-----------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

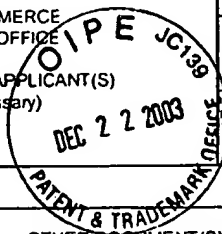
FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto			
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001		GROUP 2821-2828	



FOREIGN PATENT DOCUMENTS						
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT	
1-309242	12/89	Japan	H01J	37/06	Abst.	
11-162334	6/99	JAPAN	H01J	9/02	Abst.	
2000-57934	2/00	JAPAN	H01J	1/304	Abst.	
2000-86216	3/00	JAPAN	C01B	31/02	Abst.	
2000-90809	3/00	JAPAN	H01J	1/304	Abst.	
2001-288625 A	10/01	Japan	D01F	9/127	Abst., Counterpart U.S. Patent 2002/00009637 & EP 1 122 344	
0 433 507 A1	6/91	EPO	D01F	9/127	English	
03-260119	11/91	Japan	D01F	9/127	Abst. & Counterpart U.S. Patent 4,900,483	
2001-52598	2/01	Japan	H01J	1/316	Abst.	
2000-95509	4/00	Japan	C01B	31/02	Abst.	
0 451 208 B1	3/00	EPO	D01F	9/12	English	
2000-208028	7/00	Japan	H01J	1/304	Abst.	
0 936 650 A1	8/01	EPO	H01J	3/02	English	
08-298068	11/96	Japan	H01J	1/30	Abst.	
2001-162600	6/19/01	Japan	B82B	1/00	Abst.	

EXAMINER David Vn	DATE CONSIDERED 11/4/04
-----------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto	
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001	GROUP 2824 2828
<div style="text-align: center;">  </div>			
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)			
	W. Zhu Et Al., <i>Electron Field Emission From Nanostructured Diamond and Carbon Nanotubes</i> , Solid State Electronics, Vol. 45, 2001, pp. 921-928		
	J.M. Bonard Et Al., <i>Field Emission From Carbon Nanotubes: The First Five Years</i> , Solid Stat Electronics, Vol. 45, 2001, pp. 893-914		
	A.M. Rao et al., "In Situ-grown Carbon Nanotube Array of with Excellent Field Emission Characteristics," Applied Physics Letter, Vol. 76, No. 25, pp. 3813-3815 (2000).		
	Cheol Jin Lee et al., "Carbon Nanofibers Grown on Sodaime Glass at 500 °C Using Thermal Chemical Vapor Deposition," Chemical Physics Letters 340, pp. 413-418 (2001).		
	Sashiro Uemura et al., "Carbon Nanotube FED with Graphite-Nano-Fiber Emitters," ISSN 1083-1312, pp. 398-401.		
	Q. H. Wang et al., "A Nanotube-Based Field-Emission Flat Panel Display," Applied Physics Letters, Vol. 72, No. 22, June 1998, pp. 2912-2913		
EXAMINER	David vn		DATE CONSIDERED 11/4/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 5 of 5

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
		APPLICANT TAKEO TSUKAMOTO	
		FILING DATE AUGUST 30, 2001	GROUP 2821 2828

OFFICE
 DEC 22 2003
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS							
*EXAMINER	DOCUMENT	FILING DATE	IF APPROPRIATE	DOCUMENT	FILING DATE	IF APPROPRIATE	DOCUMENT

FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT	DOCUMENT NUMBER	DATE
JP 10-149760	6/98	JAPAN	H01J	1/30	ABSTRACT		

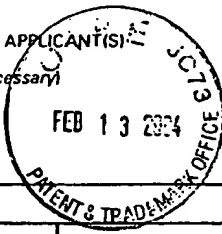
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)	

EXAMINER David vn	DATE CONSIDERED 11/4/04
--------------------------	--------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.
 Include copy of this form with next communication to applicant.

Sheet 1 of 1

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
		APPLICANT <div style="text-align: center; font-weight: bold; font-size: 1.2em;">TAKEO TSUKAMOTO</div>	
		FILING DATE <div style="text-align: center; font-weight: bold; font-size: 1.2em;">AUGUST 30, 2001</div>	GROUP <div style="text-align: center; font-weight: bold; font-size: 1.2em;">2821 2828</div>



U.S. PATENT DOCUMENTS							
*EXAMINER	DOCUMENT	DOCUMENT	DATE	COUNTRY	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE

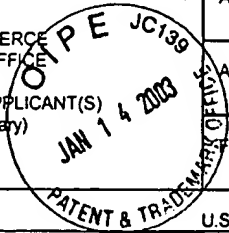
FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT		
JP 10-149760	6/98	JAPAN	H01J	1/30	ABSTRACT		

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)	

EXAMINER	David Jn	DATE CONSIDERED	11/4/04
----------	----------	-----------------	---------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.
 Include copy of this form with next communication to applicant.

FORM PTO, 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			APPLICANT Tak o Tsukamoto			
FILING DATE August 30, 2001			GROUP 2824 2828			



U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
R	5,773,921	06/30/98	Keesman et al.	313	309	
↑	5,973,444	10/26/99	Xu et al.	313	309	
↓	5,935,639	8/10/99	Sullivan et al.	427	78	
↓	4,956,578	9/11/90	Shimizu et al.	315	3	
↓	5,185,554	2/9/93	Nomura et al.	313	495	
↓	6,448,709	9/02	Chuang et al.	313	497	
R	6,204,597	03/01	Xie et al.	313	310	

FOREIGN PATENT DOCUMENTS						
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT	
WO 89/07163	08/10/89	Japan			English	
WO 90/07023	06/28/90	PCT			English	
JP 08-115652	05/07/96	Japan			Abst. & Transl.	

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)	
2	R.T.K. Baker et al., "Formation of Carbonaceous Deposits from the Platinum-Iron Catalyzed Decomposition of Acetylene," 37 J. Catal. 101-105 (1975).
2	R.T.K. Baker, "Catalytic Growth of Carbon Filaments," 27 (3) Carbon 315-323 (1989).
2	S. Iijima, "Helical Microtubules of Graphitic Carbon," Nature, Vol. 345, 56-58 (1991).
2	T. W. Ebbesen et al., "Large-Scale Synthesis of Carbon Nanotubes," Nature, Vol. 358, 220-222 (1992).
2	W. A. DeHeer et al., "Aligned Carbon Nanotube Films: Production and Optical and Electronic Properties," Science Vol. 268, 845-847 (1995).

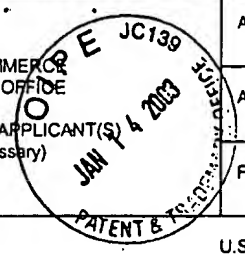
EXAMINER David Vn	DATE CONSIDERED 11/4/04
-----------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
<div style="border: 1px solid black; border-radius: 50%; padding: 10px; display: inline-block;"> OIPE JC139 JAN 14 2003 PATENT & TRADEMARK OFFICE </div>			APPLICANT Tak o Tsukamoto			
			FILING DATE August 30, 2001			GROUP 2821 2828
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
2	5,577,943	11/96	Vickers et al.	445	24	
↑	2002/136896	09/26/00	Takikawa et al.	428	408	
↑	5,192,240	03/09/93	Komatsu	445	24	
↑	5,214,346	05/25/93	Komatsu	313	309	
↑	5,382,867	01/17/95	Maruo et al.	313	309	
↓	5,612,587	03/18/97	Itoh et al.	313	309	
2	6,313,572	11/06/01	Yamada	313	310	
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
2	0 758 028 A2	02/12/97	EPO	D01F	9/127	English
↑	WO 98/05920	02/12/98	PCT	G01B	7/34	English
↓	0 394 698 A2	10/31/90	EPO	H01J	1/30	English
2	2000/277003	06/10/00	Japan	H01J	9/02	No
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)						
2	T. Guo et al., "Catalytic Growth of Single-Walled Nanotubes by Laser Vaporization," Ch m Phys. Lett., Vol. 243, 49-54 (1995).					
↑	A. G. Rinzier et al., "Unraveling Nanotubes: Field Emission from an Atomic Wire," Science, Vol. 269, 1550-1553 (1995).					
↑	W. A. DeHeer et al., "A Carbon Nanotube Field-Emission Electron Source," Science, Vol. 270, 1179-1180 (1995).					
↓	T. Kyotani et al., "Preparation of Ultrafine Carbon Tubes in Nanochannels of an Anodic Aluminum Oxide Film," Chem. Mater., Vol. 8, 2109-2113 (1996).					
2	A. Thess et al., "Crystallin Ropes of Metallic Carbon Nanotubes," Science, Vol. 273 483-487 (1996).					
EXAMINER			DATE CONSIDERED			
David m			11/4/04			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
APPLICANT Tak o Tsukamoto		FILING DATE August 30, 2001	
		GROUP 2828	



U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
2	6,135,839	10/24/00	Iwase et al.	445	24	

FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
2	0 797 233 A2	09/24/97	EPO	H01J	1/30	English
↑	0 980 089 A1	02/16/00	EPO	H01J	1/30	English
↓	0 986 084 A2	03/15/00	EPO	H01J	1/30	English
↓	1 117 118 A1	07/08/01	EPO	H01J	1/312	English
↓	0 716 439	06/12/96	EPO	H01J	3/02	English
2	2-112125	04/24/90	JAPAN	H01J	1/30	Abst. & corresponding U.S. Patent 4,956,578

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)	
2	H. Dai et al., "Single-Wall Nanotubes Produced by Metal-Catalyzed Disproportionation of Carbon Monoxide," Chem. Phys. Lett., Vol. 260, 471-475 (1996).
↑	H. Dai et al., "Nanotubes as Nanoprobes in Scanning Probe Microscopy," Nature, Vol. 384, 147-150 (1996).
↓	A. C. Dillon et al., "Storage of Hydrogen in Single- Walled Carbon Nanotubes," Nature, Vol.386, 377-379 (1997).
↓	W.P. Dyke et al., "Field Emission", <i>Advances In Electronics and Electron Physics</i> , Vol. 8, (1956) pp. 89-185
2	C.A Spindt et al., "Physical Properties of Thin-Film Field Emission Cathodes with Molybdenum Coatings", <i>Journal of Applied Physics</i> , Vol. 47, No. 12 (1976), pp. 5248-5263

EXAMINER <div style="text-align: center;">David JN</div>	DATE CONSIDERED <div style="text-align: center;">11/4/04</div>
---	---

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto			
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001		GROUP 2824 2828	
U.S. PATENT DOCUMENTS					
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS
FOREIGN PATENT DOCUMENTS					
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS
2/	3-20941	01/29/91	JAPAN	H01J	31/42
	5-211029	08/20/93	JAPAN	H01J	1/30
	8-264109	10/11/96	JAPAN	H01J	1/30
	9-82214	3/28/97	JAPAN	H01J	1/50
	1 113 478 A1	7/02	EPO		
	1 122 344 A3	8/01	EPO		
	A0 913 508	05/06/99	EPO	D01F	9/127
	09-188600	07/22/97	Japan	C30B	29/62
2/	A1 443 865	08/28/91	EPO	H01J	21/40
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)					
2/	C.A. Mead, "Operation of Tunnel-Emission Devices", <i>Journal of Applied Physics</i> , Vol. 32, No. 4, (1961), pp. 646-652				
2/	Toshiaki Kusunoki et al., "Fluctuation-Free Electron Emission from Non-Formed Metal-Insulator-Metal (MIM) Cathodes Fabricated by Low Current Anodic Oxidation", <i>Japanese Journal of Applied Physics</i> , Vol. 32 No. 11B, (1993), p. L1695-1697				
2/	M.I. Elinson et al., "The Emission of Hot Electrons and the Field Emission of Electrons from Tin Oxide", <i>Radio Engineering and Electronic Physics</i> , (1965) pp. 1290-1296				
2/	G. Dittmer, "Electrical Conduction and Electron Emission of Discontinuous Thin Films", <i>Thin Solid Films</i> , Vol. 9, (1972) pp. 317-329				
EXAMINER		DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)			ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			APPLICANT Tak o Tsukamoto			
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			FILING DATE August 30, 2001		GROUP -2021 2828	
U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
<i>2</i>	04-212236	03/08/92	Japan	H01J	1/30	No
<i>↑</i>	03-295131	12/26/91	Japan	H01J	1/30	No
<i>↑</i>	A2 535 953	04/07/93	EPO	H01J	1/30	English
<i>↑</i>	05-159696	06/25/93	Japan	H01J	1/30	No
<i>↑</i>	05-198253	08/06/93	Japan	H01J	1/30	No
<i>↑</i>	05-274997	10/22/93	Japan	H01J	1/30	Abst.
<i>↑</i>	11-232997	08/27/99	Japan	H01J	1/30	No
<i>↑</i>	A1 936 650	08/18/99	EPO	H01J	3/02	English
<i>↓</i>	10-289650	10/27/98	Japan	H01J	1/30	No
<i>2</i>	A1 871 195	10/14/98	EPO	H01J	1/30	English
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)						
<i>2</i>	M. Hartwell et al., "Strong Electron Emission from Patterned Tin-Indium Oxide Thin Films", IEEE Trans. Ed. Conf., (1983) pp.519-521					
<i>↑</i>	Hisashi Araki et al., "Electroforming and Electron Emission of Carbon Thin Films, Journal of th Vacuum Society of Japan, 1983 (with English Abstract on p. 22)					
<i>↑</i>	U.S. PATENT APPLICATION PUBLICATION NO. US 2002/0009637A1, 1/24/02 (Murakami et al.)					
<i>↓</i>	U.S. PATENT APPLICATION PUBLICATION NO. US 2001/0006232A1, 7/5/01 (Choi et al.)					
<i>2</i>	Rodriguez et al., "Catalytic Engineering of Carbon Nanostructures," Langmuir 11, 3862-3866 (1995).					
EXAMINER David vu			DATE CONSIDERED 11/4/04			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 5 of 5

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
		APPLICANT TAKEO TSUKAMOTO	
		FILING DATE AUGUST 30, 2001	GROUP 2821 2828

PRE JC139
 DEC 22 2003
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS							
*EXAMINER		DOCUMENT					FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
D	JP	10-149760	6/98	JAPAN	H01J	1/30	ABSTRACT

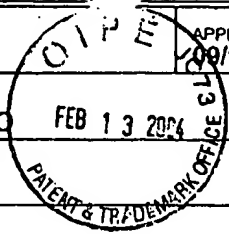
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)		

EXAMINER David Vn	DATE CONSIDERED 11/4/01
--------------------------	--------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.
 Include copy of this form with next communication to applicant.

Sheet 1 of 1

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		ATTY DOCKET NO. 03500.015727. APPLICANT TAKEO TSUKAMOTO FILING DATE August 30, 2001		APPLICATION NO. 09/941,780 GROUP 2621 2828	
---	--	---	--	--	--



U.S. PATENT DOCUMENTS							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
2	6,087,765	07/11/00	Coll et al.	313	309		
2	5,872,422	02/16/99	Xu et al.	313	311		
2	2002/0009637	01/24/02	Murakami et al.	429	213		

FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT		
WO 01/93292	12/06/01	PCT	—	—			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)	

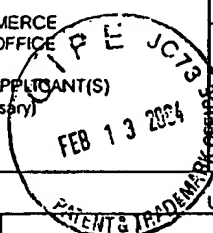
EXAMINER David vn	DATE CONSIDERED 11/4/04
--------------------------	--------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
Date Submitted to PTO: [DATE]			APPLICANT Takeo Tsukamoto			
FILING DATE August 30, 2001			GROUP 2821 2828			
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
2	6,472,814 B1	10/02	Yamanobe et al.	313	495	11/13/98
↑	5,847,495	12/98	Yamanobe et al.	313	310	
	5,066,883	11/91	Yoshioka et al.	313	309	
	6,455,021 B1	09/02	Saito	423	447.3	07/20/99
	6,471,936 B1	10/02	Chen et al.	423	658.2	03/02/00
	6,283,812 B1	09/01	Jin et al.	445	24	01/25/99
	4,816,289	03/89	Komatsu et al	423	447.3	
	5,443,859	08/95	Nagata	427	122	
	5,618,875	04/97	Baker et al.	524	495	
	5,690,997	11/97	Grow	427	249	
	6,129,602	10/00	Yamanobe	445	24	
	6,228,904 B1	05/01	Yadav et al.	523	210	
	6,333,016 B1	12/01	Resasco et al.	423	447.3	9/3/99
	6,413,487 B1	07/02	Resasco et al.	423	447.3	6/2/00
	6,445,006 B1	09/02	Brandes et al.	257	76	7/27/99
	5,981,305	11/99	Hattori	438	20	
	6,290,564 B1	9/01	Talin et al.	445	50	9/30/99
	5,458,784	10/95	Baker et al.	210	674	5/3/00
↓	6,331,690 B1	12/01	Yudasaka et al.	219	121.6	
2	5,965,267	10/99	Nolan et al.	428	408	
EXAMINER David JN			DATE CONSIDERED 11/4/04			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 5

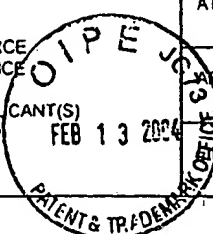
FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)			ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
			APPLICANT Takeo Tsukamoto			
			FILING DATE August 30, 2001		GROUP 2821 2828	
U.S. PATENT DOCUMENTS						
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
D	6,390,612 B1	05/02	Kotaki et al.	347	85	
A	5,872,541	02/99	Yoshioka et al.	345	74	
	5,543,684	08/96	Kumar et al.	313	495	
	5,551,903	9/96	Kumar et al.	445	24	
	4,900,483	2/90	Witzke et al.	264	29.2	
	5,500,200	3/96	Mandeville et al.	423	447.3	
	5,726,524	3/98	Debe	313	309	
	2002/0009637 A1	1/24/02	Murakami et al	429	213	2/5/01
	2002/0047562 A1	04/25/02	Kitamura et al.	315	169.3	05/29/01
	5,770,918	6/98	Kawate et al.	313	495	
	5,185,554	2/93	Nomura et al.	313	495	
✓	2002/0146958 A1	10/02	Ono et al.	445	24	
D	2003/0048056 A1	3/03	Kitamura et al.	313	311	

EXAMINER David Jn	DATE CONSIDERED 11/4/04
--------------------------	--------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 2 of 5

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780	
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto			
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001		GROUP -2821 2828	



FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
2	11-194134	07/99	Japan	G01N	37/00	Abst., European Equivalent 0 913 508 A3
↑	11-139815	05/99	Japan	G01B	31/02	Abst.
	0 535 953 B1	01/96	EPO	H01J	1/30	English
	1 122 344 A2	08/01	EPO	D01F	9/127	English
	0 758 028 B1	09/11/02	EPO	D01F	9/127	English
	11-232997	08/27/99	Japan	H01J	1/30	European Counterpart 0 936 650
	1 022 763 A1	7/00	EPO	H01J	9/02	English
	2000-223005	8/00	Japan	H01J	1/304	Abst. & Counterpart U.S. Patent 6,283,812
	0 836 217 A1	04/98	EPO	H01J	29/94	English
	WO 99/58748	11/99	PCT	D01F	9/127	English
	CN 1181607A	5/98	China			English Counterparts 0 836 217 & 99/58748
	1 102 299 A1	5/01	EPO	H01J	1/30	English
	0 913 508 A3	5/99	EPO	D01F	9/127	English
	1 096 533 A1	5/01	EPO	H01J	9/02	English
	WO 01/26130	4/01	PCT	H01J	9/02	English
✓	GB 2 308 495 A	6/97	UK	H01J	1/20	English
2	1 120 877 A1	8/01	EPO	H02G	5/06	English

EXAMINER David Jn	DATE CONSIDERED 11/4/01
-----------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.		APPLICATION NO. 09/941,780		
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto				
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)						
FEB 13 2004		FILING DATE August 30, 2001		GROUP 2821 2828		
FOREIGN PATENT DOCUMENTS						
2	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
↑	1-309242	12/89	Japan	H01J	37/06	Abst.
	11-162334	6/99	JAPAN	H01J	9/02	Abst.
	2000-57934	2/00	JAPAN	H01J	1/304	Abst.
	2000-86216	3/00	JAPAN	C01B	31/02	Abst.
	2000-90809	3/00	JAPAN	H01J	1/304	Abst.
	2001-288625 A	10/01	Japan	D01F	9/127	Abst., Counterpart U.S. Patent 2002/00009637 & EP 1 122 344
	0 433 507 A1	6/91	EPO	D01F	9/127	English
	03-260119	11/91	Japan	D01F	9/127	Abst. & Counterpart U.S. Patent 4,900,483
	2001-52598	2/01	Japan	H01J	1/316	Abst.
	2000-95509	4/00	Japan	C01B	31/02	Abst.
	0 451 208 B1	3/00	EPO	D01F	9/12	English
	2000-208028	7/00	Japan	H01J	1/304	Abst.
	0 936 650 A1	8/01	EPO	H01J	3/02	English
	08-298068	11/96	Japan	H01J	1/30	Abst.
2	2001-162600	6/19/01	Japan	B82B	1/00	Abst.
EXAMINER David vn			DATE CONSIDERED 11/4/04			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		APPLICANT Takeo Tsukamoto	
LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		FILING DATE August 30, 2001	GROUP 2821-2828
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)			
R	W. Zhu Et Al., <i>Electron Field Emission From Nanostructured Diamond and Carbon Nanotubes</i> , Solid State Electronics, Vol. 45, 2001, pp. 921-928		
↑	J.M. Bonard Et Al., <i>Field Emission From Carbon Nanotubes: The First Five Years</i> , Solid State Electronics, Vol. 45, 2001, pp. 893-914		
	A.M. Rao et al., "In Situ-grown Carbon Nanotube Array of with Excellent Field Emission Characteristics," Applied Physics Letter, Vol. 76, No. 25, pp. 3813-3815 (2000).		
	Cheol Jin Lee et al., "Carbon Nanofibers Grown on Sodalime Glass at 500 °C Using Thermal Chemical Vapor Deposition," Chemical Physics Letters 340, pp. 413-418 (2001).		
	Sashiro Uemura et al., "Carbon Nanotube FED with Graphite-Nano-Fiber Emitters," ISSN 1083-1312, pp. 398-401.		
↓	Q. H. Wang et al., "A Nanotube-Based Field-Emission Flat Panel Display," Applied Physics Letters, Vol. 72, No. 22, June 1998, pp. 2912-2913		
EXAMINER	Dand m		DATE CONSIDERED 11/4/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
APPLICANT TAKEO TSUKAMOTO		FILING DATE AUGUST 30, 2001	
GROUP 2821 2878			

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
2	6,420,726	7/02	Choi et al.	257	10		

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT	
2	1 113 478 A1	7/04	EPO	<hr/>			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)		

EXAMINER David VM	DATE CONSIDERED 11/4/04
-----------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) (Use several sheets if necessary)		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
Date Submitted to PTO: [DATE]		APPLICANT TAKEO TSUKAMOTO	
		FILING DATE AUGUST 20, 2001	GROUP 2821 2828

RECEIVED
 JUN 30 2004
 PATENT & TRADEMARK OFFICE

U.S. PATENT/PUBLICATION DOCUMENTS							
*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
<i>21</i>	2003/0222560 A1	12/03	Roach	313	311		
<i>22</i>	2003/0048057 A1	03/03	Kazunari et al.	313	311		

RECEIVED
 JUL 02 2004
 TECH CENTER 2800

FOREIGN PATENT DOCUMENTS							
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT		

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)		

EXAMINER <i>David vn</i>	DATE CONSIDERED <i>11/4/04</i>
-----------------------------	-----------------------------------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO 1449 (modified) U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE LIST OF REFERENCES CITED BY APPLICANT(S) <i>(Use several sheets if necessary)</i>		ATTY DOCKET NO. 03500.015727.	APPLICATION NO. 09/941,780
		APPLICANT <div style="text-align: center; font-weight: bold; font-size: 1.2em;">TAKEO TSUKAMOTO</div>	
		FILING DATE <div style="text-align: center; font-weight: bold;">AUGUST 30, 2001</div>	GROUP <div style="text-align: center; font-weight: bold;">2821 2828</div>

OIPE
 SEP 17 2003
 PATENT & TRADEMARK OFFICE

U.S. PATENT DOCUMENTS							
*EXAMINER		DOCUMENT					FILING DATE IF APPROPRIATE

FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
		JP 10 149760	6/98	JAPAN	H01J	1/30	ABSTRACT

RECEIVED
 SEP 22 2003
 TC 2800 MAIL ROOM

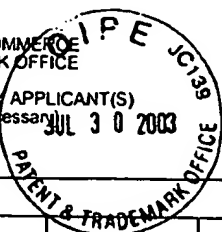
OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)	

EXAMINER David vn	DATE CONSIDERED 11/04/04
--	---

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered.
 Include copy of this form with next communication to applicant.

Sheet 1 of 1

FORM PTO 1449 (modified)

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICELIST OF REFERENCES CITED BY APPLICANT(S)
(Use several sheets if necessary)ATTY DOCKET NO.
03500.015727.APPLICATION NO.
09/941,780APPLICANT
TAKEO TSUKAMOTOFILING DATE
August 30, 2001GROUP
2821 2828

U.S. PATENT DOCUMENTS

*EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
DL	6,087,765	07/11/00	Coll et al.	313	309	
DL	5,872,422	02/16/99	Xu et al.	313	311	
DL	2002/0009637	01/24/02	Murakami et al.	429	213	

FOREIGN PATENT DOCUMENTS

	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES/NO/ OR ABSTRACT
RV	WO 01/93292	12/06/01	PCT			

OTHER DOCUMENT(S) (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER

David Vn

DATE CONSIDERED

12/15/03

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Sheet 1 of 1